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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,553	02/17/2004	Lingsiao Wang	ISTOR.012A	9286
20995 7590 06/28/2007 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER CHASE, SHELLY A	
			ART UNIT 2112	PAPER NUMBER
			NOTIFICATION DATE 06/28/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/781,553	<b>Applicant(s)</b> WANG ET AL.	
	<b>Examiner</b> Shelly A. Chase	<b>Art Unit</b> 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-19, 26, 27, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 4-9, 20-25, 28, 29 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**SHELLY CHASE**  
**PRIMARY EXAMINER**

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-04 &amp; 9-04</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1 to 32 are presented for examination. Acknowledgment is made of preliminary amendment filed 6-18-2004.

#### ***Information Disclosure Statement***

2. The references listed in the information disclosure statement submitted on 6-15-2004 and 9-29-2004 have been considered by the examiner (see attached PTO-1449).

#### ***Drawings***

3. The drawings were received on 7-15-2004. These drawings are accepted.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 to 3, 10 to 19, 26, 27, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Grinfeld (USP 7035291 B2).

Claims 1 and 2:

**Grinfeld** teaches a method and a device for transmission control protocol (TCP) acceleration in a network communication system, the method comprising the steps of: a network communication system (20) that includes a network (26) that transmit/receive TCP/IP data from a host computer (22) to a receiver computer (24) (see col. 6, lines 48 to 55). Grinfeld also teaches that the communication system includes a network interface card (28) with a TCP accelerator (30) that is implemented in hardware and is configured to process the TCP/IP data according to "transmission window" parameter" (see col. 6, lines 57 et seq.).

Grinfeld further teaches that the TCP accelerator operates to control the flow of data and to avoid congestion by implementing the parameter where retransmission is performed if a data is lost or a retransmission time out has occurred (see col. 7, lines 30 et seq.). Grinfeld also teaches that software embedded in microprocessor can be used to implement several functions of the TCP accelerator wherein based on acknowledgement (ACK) and window sizing the data between the host and peer is controlled (see col. 7, lines 13 to 30).

As per claim 3, Grinfeld teaches that the TCP accelerator includes a transmitter (36) ("accelerator sub-system") for generating and sending TCP segments and utilize the "transmission window" parameter for controlling the receiving and sending of data (see col. 7, lines 16 to 45). Grinfeld also teaches that the "transmission window" parameter is used in the control of data flow, window sizing, ACK messages and retransmission (see col. 7, lines 31 et seq.).

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As per claim **10**, Grinfeld teaches that the accelerator hardware uses a synchronization interface (40) ("mutual exclusion mechanism") for accelerating TCP data (see col. 7, lines 35 et seq.).

**Claim 11:**

**Grinfeld** teaches a method and a device for transmission control protocol (TCP) acceleration in a network communication system, the device comprising: a network communication system (20) that includes a network interface card (28) with a TCP accelerator (30) that is implemented in hardware and is configured to process the TCP/IP data according to "transmission window" parameter" (see col. 6, lines 57 et seq.).

Grinfeld further teaches that the TCP accelerator operates "on the fly" to control the flow of data and to avoid congestion by implementing the parameter where retransmission is performed if a data is lost or a retransmission time out has occurred (see col. 7, lines 30 et seq.). Grinfeld also teaches that software embedded in a microprocessor (" non-real time module") can be used to implement several functions of the TCP accelerator wherein based on acknowledgement (ACK) and window sizing the data between the host and peer is controlled (see col. 7, lines 13 to 30).

As per claims **12** and **13**, Grinfeld teaches that the accelerator communicates according to TCP and is compatible with conventional TCP protocol, as well as other protocols can be used (see col. 4, lines 14 to 18 and col. 6, lines 62 to 66).

As per claim **14**, Grinfeld teaches that the software embedded in a microprocessor processes the TCP/IP data to control the flow of data, through ACK messages, window sizing and retransmission request (see col. 7, lines 13 et seq.).

As per claim **15**, Grinfeld teaches that the receiver sends an ACK based on data it received, as well as the peer returns an ACK which the synchronization interface (40) uses for processing (see col. 7, lines 23 et seq.).

As per claim **16**, Grinfeld teaches that a "transmission window" parameter is used for flow control and congestion avoidance wherein the communicated window sizing is received by the interface unit that makes adjustments (see col. 7, lines 35 et seq.).

As per claim **17**, Grinfeld teaches that the retransmission is based on a retransmission time out, or roundtrip delay and lost of data (see col. 7, lines 50 to 59 and col. 8, lines 30 to 44).

As per claim **18**, Grinfeld teaches that the accelerator operation includes generating ACK, windowing sizing, congestion avoidance, and a retransmission process (see col. 8, lines 56 et seq.).

As per claim **19**, Grinfeld teaches that the TCP accelerator includes a transmitter (36) ("accelerator sub-system") for generating and sending TCP segments and utilize the "transmission window" parameter for controlling the receiving and sending of data (see col. 7, lines 16 to 45). Grinfeld also teaches that the "transmission window" parameter is used in the control of data flow, window sizing, ACK messages and retransmission (see col. 7, lines 31 et seq.).

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As per claim **26**, Grinfeld teaches that the synchronization interface sets a timer and mange the timer for accelerating the TCP data (see col. 5, lines 5 to 15 and col. 8, lines 30 to 55).

As per claim **27**, Grinfeld teaches that the accelerator hardware uses a synchronization interface (40) ("mutual exclusion mechanism") for accelerating TCP data (see col. 7, lines 35 et seq.).

As per claims **30** and **31**, Grinfeld teaches that the device accelerator operates in a continuous mode with out interruptions (see col. 3, lines 55 to 65).

### ***Allowable Subject Matter***

6. Claims 4 to 9, 20 to 25, 28, 29, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A. Chase whose telephone number is 571-272-3816. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques H. Louis-Jacques can be reached on 571-272-6962. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**SHELLY CHASE**  
**PRIMARY EXAMINER**